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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,527	03/01/2004	Gus Alexander	3209-0013	2771

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SUITE 2850
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CHICAGO, IL 60606

EXAMINER	
RIGGLEMAN, JASON PAUL	

ART UNIT	PAPER NUMBER
1711	

MAIL DATE	DELIVERY MODE
05/13/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/790,527	ALEXANDER ET AL.	
	Examiner	Art Unit	
	JASON P. RIGGLEMAN	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/28/2011*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10-16 and 34-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12 and 34-39* is/are allowed.

6)☒ Claim(s) *1-8,10-11, 13-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Foreign reference*.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2011 has been entered.

Status of Claims

2. Applicant's reply, filed 3/28/2011, has been received. Current pending claims are 1-8, 10-16 and 34-39. Claims 1-8, 10-11, and 13-16 are amended. Claims 9, 17-33 and 40-47 are cancelled.

Response to Arguments

3. Applicant's arguments filed 3/28/2011 have been fully considered. The applicant argues that neither Martin nor Weber teach a diagnostic circuit which is illuminated when it has determined that the respective operation condition is present. Examiner states that it is well known to automate diagnosis. For example, the substitution of an indicator light for a gauge and known value is obvious since the former requires less knowledge on the part of the user and makes it easier to operate the device, effectively.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4, 6, and 8-9 are rejected under 35 U.S.C. 103(a) as obvious over Martin (US Patent No. 4697464) in view of Weber (US Patent No. 5757162) in view of Moller (DD227568).

6. Martin teaches a pressure washer which is connected to a portable diagnostic systems analyzer, Fig. 5. A water line 35 supplies water to an AC powered motor that pressurizes the water. An application wand 60 is connected to the water outlet and has a nozzle 62 for outputting a pressurized water stream. A power cord 34 has a plug at a distal end for connecting AC power to the electrical motor. A diagnostic circuit is taught, block 55A, for detecting a voltage drop over a power cord, indicated by analog gauges 34C-34D, Fig. 1. A voltage monitor is present to measure electrical line voltage through and throughout, the pressure water apparatus (Column 4, Lines 47-50). A pressure sensing means is present to measure the water pressure at the exiting nozzle. A soap line is present for supplying detergent. A sensor 35B measures the water input flow and is capable of determining if adequate water is supplied to the power washer. The gauges in the test panel may be any conventional analog or digital gauges (Column 8, Lines 45-50). *The diagnostic circuit detects an operational condition of the electric motor since it measures voltage and electric current draw -- which are related to the operation condition of the motor (see abstract).* The operation condition is illustrated in Fig. 5 by the various configurations of the gauges that display the operation parameters – including any voltage drop in the power cord (Column 6, Lines 15-26). A gauge 35D measures the water temperature being supplied to the electrical motor. A flow meter 70 is shown for measuring the flow of chemical or soap solution being added to the container from the chemical source supply (Column 7, Lines

52-68). An ohm-volt meter means is available for measuring the continuity or voltage at different points in the system. The power cord enters the test panel and is connected to various gauges and meters in the panel which measure the voltage and current draw (Column 6, Lines 55-59).

7. In the alternative, Martin does not teach an indicator light; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to one of ordinary skill in the art to use a gauge of the type which illuminates the operation condition such that it can be easily seen by the operator to achieve the expected result. It is well known to automate diagnosis. For example, the substitution of an indicator light for a gauge and known value is obvious since the former requires less knowledge on the part of the user and makes it easier to operate the device, effectively.

8. Martin does not teach the use of operation amplifiers to detect a plurality of voltage levels in which the detected voltage levels correspond to an operation condition; however, Weber teaches the use of these components, capacitor 156 wired in series, LED 202-2, optocoupler 200-2, resistor 176-2, operational amplifier (comparator) 170 serves as a power level detector, to monitor the fluctuations of AC power supplied to a power tool – especially in the context of using a long, lossy, extension cord of 75 feet or more in length. Weber teaches that operating a motor with a low voltage is detrimental to the motor life (Column 1, Lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin with Weber to allow it to operate in the event of a power failure when diagnosing pressure washer problems. *Note: the use of the operational amplifier to detect voltage levels as opposed to power levels is the intended use of the operational amplifier. Further, no criticality has been demonstrated in monitoring the voltage instead of the power – it is understood that power levels*

relate to the operation condition since AC power fluctuation is commonly used in cleaning systems as an indicator of low-pressure or sucking of air by the motor. Further, Moller teaches that a line voltage drop is essentially the same as measuring a motor current.

9. Claims 7 and 10-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US Patent No. 4697464) in view of Weber (US Patent No. 5757162) and further in view of Dalquist, III et al. (US Patent No. 5040950) in view of Moller (DD227568).

10. Martin teaches a pressure washer which is connected to a portable diagnostic systems analyzer, Fig. 5. A water line 35 supplies water to an AC powered motor that pressurizes the water. An application wand 60 is connected to the water outlet and has a nozzle 62 for outputting a pressurized water stream. A power cord 34 has a plug at a distal end for connecting AC power to the electrical motor. A diagnostic circuit is taught, block 55A, for detecting a voltage drop over a power cord, indicated by analog gauges 34C-34D, Fig. 1. A voltage monitor is present to measure electrical line voltage through and throughout, the pressure water apparatus (Column 4, Lines 47-50). A pressure sensing means is present to measure the water pressure at the exiting nozzle. A soap line is present for supplying detergent. A sensor 35B measures the water input flow and is capable of determining if adequate water is supplied to the power washer. The gauges in the test panel may be any conventional analog or digital gauges (Column 8, Lines 45-50). *The diagnostic circuit detects an operational condition of the electric motor since it measures voltage and electric current draw -- which are related to the operation condition of the motor (see abstract).* The operation condition is illustrated in Fig. 5 by the various configurations of the gauges that display the operation parameters – including any voltage drop in the power cord (Column 6, Lines 15-26). A gauge 35D measures the water temperature being

supplied to the electrical motor. A flow meter 70 is shown for measuring the flow of chemical or soap solution being added to the container from the chemical source supply (Column 7, Lines 52-68). An ohm-volt meter means is available for measuring the continuity or voltage at different points in the system. The power cord enters the test panel and is connected to various gauges and meters in the panel which measure the voltage and current draw (Column 6, Lines 55-59).

11. In the alternative, Martin does not teach an indicator light; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to one of ordinary skill in the art to use a gauge of the type which illuminates the operation condition such that it can be easily seen by the operator to achieve the expected result. It is well known to automate diagnosis. For example, the substitution of an indicator light for a gauge and known value is obvious since the former requires less knowledge on the part of the user and makes it easier to operate the device, effectively.

12. Martin does not teach the use of operation amplifiers to detect a plurality of voltage levels in which the detected voltage levels correspond to an operation condition; however, Weber teaches the use of these components, capacitor 156 wired in series, LED 202-2, optocoupler 200-2, resistor 176-2, operational amplifier (comparator) 170 serves as a power level detector, to monitor the fluctuations of AC power supplied to a power tool – especially in the context of using a long, lossy, extension cord of 75 feet or more in length. Weber teaches that operating a motor with a low voltage is detrimental to the motor life (Column 1, Lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin with Weber to allow it to operate in the event of a power failure when diagnosing pressure washer problems. *Note: the use of the operational amplifier to detect voltage levels as opposed*

to power levels is the intended use of the operational amplifier. Further, not criticality has been demonstrated in monitoring the voltage instead of the power – it is understood that power levels relate to the operation condition since AC power fluctuation is commonly used in cleaning systems as an indicator of low-pressure or sucking of air by the motor. Further, Moller teaches that a line voltage drop is essentially the same as measuring a motor current.

13. Martin, as modified by Weber, does not teach a power cord having a ground fault circuit interrupter; however, Dalquist, III et al. teaches a power washing apparatus a power cord 38 having a plug at a distal end for connecting AC power to the motor 12, Fig. 1, having a ground fault indicator 38 and reset circuit 42. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin, as modified by Weber, with Dalquist, III et al. to monitor the electrical power before and after the in-line ground fault circuit interrupter; therefore, allowing complete diagnosis and analysis of any power failures.

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US Patent No. 4697464) in view of Weber (US Patent No. 5757162) and further in view of Laabs et al. (US Patent No. 5749526) in view of Moller (DD227568).

15. Martin teaches a pressure washer which is connected to a portable diagnostic systems analyzer, Fig. 5. A water line 35 supplies water to an AC powered motor that pressurizes the water. An application wand 60 is connected to the water outlet and has a nozzle 62 for outputting a pressurized water stream. A power cord 34 has a plug at a distal end for connecting AC power to the electrical motor. A diagnostic circuit is taught, block 55A, for detecting a voltage drop over a power cord, indicated by analog gauges 34C-34D, Fig. 1. A voltage monitor is present to measure electrical line voltage through and throughout, the pressure water apparatus

(Column 4, Lines 47-50). A pressure sensing means is present to measure the water pressure at the exiting nozzle. A soap line is present for supplying detergent. A sensor 35B measures the water input flow and is capable of determining if adequate water is supplied to the power washer. The gauges in the test panel may be any conventional analog or digital gauges (Column 8, Lines 45-50). *The diagnostic circuit detects an operational condition of the electric motor since it measures voltage and electric current draw -- which are related to the operation condition of the motor (see abstract)*. The operation condition is illustrated in Fig. 5 by the various configurations of the gauges that display the operation parameters – including any voltage drop in the power cord (Column 6, Lines 15-26). A gauge 35D measures the water temperature being supplied to the electrical motor. A flow meter 70 is shown for measuring the flow of chemical or soap solution being added to the container from the chemical source supply (Column 7, Lines 52-68). An ohm-volt meter means is available for measuring the continuity or voltage at different points in the system. The power cord enters the test panel and is connected to various gauges and meters in the panel which measure the voltage and current draw (Column 6, Lines 55-59).

16. In the alternative, Martin does not teach an indicator light; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to one of ordinary skill in the art to use a gauge of the type which illuminates the operation condition such that it can be easily seen by the operator to achieve the expected result. It is well known to automate diagnosis. For example, the substitution of an indicator light for a gauge and known value is obvious since the former requires less knowledge on the part of the user and makes it easier to operate the device, effectively.

17. Martin does not teach the use of operation amplifiers to detect a plurality of voltage levels in which the detected voltage levels correspond to an operation condition; however, Weber teaches the use of these components, capacitor 156 wired in series, LED 202-2, optocoupler 200-2, resistor 176-2, operational amplifier (comparator) 170 serves as a power level detector, to monitor the fluctuations of AC power supplied to a power tool – especially in the context of using a long, lossy, extension cord of 75 feet or more in length. Weber teaches that operating a motor with a low voltage is detrimental to the motor life (Column 1, Lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin with Weber to allow it to operate in the event of a power failure when diagnosing pressure washer problems. *Note: the use of the operational amplifier to detect voltage levels as opposed to power levels is the intended use of the operational amplifier. Further, not criticality has been demonstrated in monitoring the voltage instead of the power – it is understood that power levels relate to the operation condition since AC power fluctuation is commonly used in cleaning systems as an indicator of low-pressure or sucking of air by the motor. Further, Moller teaches that a line voltage drop is essentially the same as measuring a motor current.*

18. Martin, as modified by Weber, does not teach an operation condition whereby a thermal protection circuit of the electrical motor is open for protecting the electrical motor; however, Laabs et al. teaches a power washer with a high temperature shut-down switch 34 which shuts down the motor 25 if the temperature exceeds a pre-determined amount. The switch 34 energizes a red indicator light when it shuts off the motor 25 (Column 4, Lines 0-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin with, as modified by Weber, with Laabs et al. to create a power-washing device with a means to

indicate that the motor is protected from overheating damage or has been shut-down due to being overheated.

19. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US Patent No. 4697464) in view of Teague (US Patent No. 5381962) and further in view of Weber (US Patent No. 5757162) in view of Moller (DD227568).

20. Martin teaches a pressure washer which is connected to a portable diagnostic systems analyzer, Fig. 5. A water line 35 supplies water to an AC powered motor that pressurizes the water. An application wand 60 is connected to the water outlet and has a nozzle 62 for outputting a pressurized water stream. A power cord 34 has a plug at a distal end for connecting AC power to the electrical motor. A diagnostic circuit is taught, block 55A, for detecting a voltage drop over a power cord, indicated by analog gauges 34C-34D, Fig. 1. A voltage monitor is present to measure electrical line voltage through and throughout, the pressure water apparatus (Column 4, Lines 47-50). A pressure sensing means is present to measure the water pressure at the exiting nozzle. A soap line is present for supplying detergent. A sensor 35B measures the water input flow and is capable of determining if adequate water is supplied to the power washer. The gauges in the test panel may be any conventional analog or digital gauges (Column 8, Lines 45-50). *The diagnostic circuit detects an operational condition of the electric motor since it measures voltage and electric current draw -- which are related to the operation condition of the motor (see abstract).* The operation condition is illustrated in Fig. 5 by the various configurations of the gauges that display the operation parameters – including any voltage drop in the power cord (Column 6, Lines 15-26). A gauge 35D measures the water temperature being supplied to the electrical motor. A flow meter 70 is shown for measuring the flow of chemical or

soap solution being added to the container from the chemical source supply (Column 7, Lines 52-68). An ohm-volt meter means is available for measuring the continuity or voltage at different points in the system. The power cord enters the test panel and is connected to various gauges and meters in the panel which measure the voltage and current draw (Column 6, Lines 55-59).

21. In the alternative, Martin does not teach an indicator light; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to one of ordinary skill in the art to use a gauge of the type which illuminates the operation condition such that it can be easily seen by the operator to achieve the expected result. It is well known to automate diagnosis. For example, the substitution of an indicator light for a gauge and known value is obvious since the former requires less knowledge on the part of the user and makes it easier to operate the device, effectively.

22. Martin does not teach the use a LED for indicating purposes; however, Teague teaches the use of a plurality of LEDs, Fig. 7, 125, 127, 129, and 131 for indicating the actuation/deactuation of switches/modes of operation (Column 7, Lines 61-70). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin with Teague to create a pressure washer with an inexpensive and modern LED diagnostic display.

23. Martin, as modified by Teague, does not teach bypass-transistors, operational amplifiers, nor backup-capacitors; however, the use bypass-transistors wired in parallel to light-emitting diodes, capacitors for storing and supplying a DC power, and operational amplifiers are all well known to those of ordinary skill in the art. It is obvious to wire LEDs in series and to wire transistors in parallel or series with such LEDs. Weber teaches the use of these components, capacitor 156 wired in series, LED 202-2, optocoupler 200-2, resistor 176-2, operational

amplifier (comparator) 170 serves as a power level detector, to monitor the fluctuations of AC power supplied to a power tool – especially in the context of using a long, lossy, extension cord of 75 feet or more in length. Weber teaches that operating a motor with a low voltage is detrimental to the motor life (Column 1, Lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martin, as modified by Teague, with Weber to provide a means to wire the LED indicator with the pressure washer and to allow it to operate in the event of a power failure when diagnosing pressure washer problems. *Note: the use of the operational amplifier to detect voltage levels as opposed to power levels is the intended use of the operational amplifier. Further, not criticality has been demonstrated in monitoring the voltage instead of the power – it is understood that power levels relate to the operation condition since AC power fluctuation is commonly used in cleaning systems as an indicator of low-pressure or sucking of air by the motor. Further, Moller teaches that a line voltage drop is essentially the same as measuring a motor current.*

Allowable Subject Matter

24. Claims 12 and 34-39 are allowed.

Conclusion

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON P. RIGGLEMAN whose telephone number is (571)272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1711

Jason P Riggleman
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/J. P. R./
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